



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,537	12/20/1999	RONALD H MILLER	199-0516	3755

33198 7590 09/30/2003  
BARTON E. SHOWALTER  
2001 ROSS AVENUE, 8TH FLOOR  
DALLAS, TX 75201-2980

EXAMINER

JONES, HUGH M

ART UNIT	PAPER NUMBER
----------	--------------

2123

DATE MAILED: 09/30/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 2123

## DETAILED ACTION

### Introduction

1. Applicants were asked to supply various documents deemed necessary for the examination of this application - see paper # 6

“2. The information disclosure statement filed 12/20/1999 fails to fully comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the Miller et al. Reference has not been submitted. Applicants appear to have instead submitted a five page printout from the Fluent™ website, which is not listed on the Information Disclosure Statement. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 C(1).

Furthermore, Applicants are requested to provide the following documents:

- Strumolo et al. have published a paper entitled “*New directions in computational aerodynamics*”. The paper is listed at the *POWERFLOW*™ website (<http://www.exa.com/newsite/newsevents/inthenews.htm>).

Art Unit: 2123

- Applicants have relied upon the *POWERFLOW*<sup>TM</sup> teachings (line 32, page 6 to line 14, page 7, specification); however, no documentation has been provided. These teachings appear to constitute essential matter.

- Applicants have submitted a document from the Fluent<sup>TM</sup> website. Applicants are required to supply any Fluent<sup>TM</sup> disclosures.

As these references are not readily available to the Examiner or to the public at large, the should provide the office with copies of the reference in any response to this action as per the provisions of 37 CFR 1.56.”

2. Applicants are thanked for supplying the Miller et al. reference. In response to the request for information on *Fluent*, Applicants state

“The Examiner also states that a five page Internet printout regarding FLUENT was submitted with, but not listed in, the December, 1999 Information Disclosure Statement. Applicants are not familiar with this document and are unaware of how this document found its way into the application paperwork.”

3. The Examiner is not sure what Applicants are saying. The fact is that the document was present in the application. Furthermore, the Examiner notes that Applicant’s filing date is December 20, 1999, while the webpages were printed on 6/8/1998.

4. Applicants further state that

Art Unit: 2123

“If the Examiner feels that this reference is pertinent to the present application, Applicants request that the Examiner consider the reference and submit it to the Applicants.”

5. However, the Examiner refers Applicants to the request made in paper # 6, namely,

“Applicants have submitted a document from the Fluent<sup>TM</sup> website. Applicants are requested to supply any Fluent<sup>TM</sup> disclosures.” (Emphasis added)

The Examiner notes that Applicants are silent in response to the request for information which is considered material to the patentability of the claims, and is based on art submitted with the application.

6. Applicants also state,

“In addition, the Examiner requests that Applicants provide a copy of a paper by Strumolo et al., entitled “New Directions in Computational Aerodynamics” and other documentation relating to PowerFlow and FLUENT. Applicants do not have these documents and are unsure why the Examiner believes that the Applicants have these documents.”

7. The Examiner is not persuaded by Applicant’s arguments and requires these documents from Applicants for the following reasons (the reasons are also provided because Applicants appear to question why the Examiner thinks Applicants have the documents).

a) Strumolo is one of the inventors and the title indicates that the paper is material to the examination of the application. Since Strumolo is both a *co-author* of the paper and a *co-*

Art Unit: 2123

*inventor* (one of the Applicants), it seems reasonable to expect that Applicants should be able to fulfill their duty to disclose (37 C.F.R. 1.56) and supply the required paper.

2) the fact is that the FLUENT document was in the application at the time of filing. The document is directed to computational fluid design applications including automotive external aerodynamics, engine block design and simulation, and engine manifold design and simulation. The FLUENT teachings are considered very relevant to examination of the application.

b) PowerFlow News (1998) states that PowerFlow was used at Ford Motor Company, including applications directed at internal flow in engines.

Item “u” (form 892, paper # 6) refers readers to the Strumolo et al. paper to find details of “Exa” and PowerFLOW.

c) The Miller reference (paper # 7 - IDS), which is co-authored by Strumolo and Miller expressly discloses computational engine flow analysis using PowerFLOW.

d) Applicants refer to PowerFLOW in the *specification* (line 32, page 6 to line 14, page 7). It constitutes *essential matter*.

8. In response to Applicant’s arguments, please note the following requirement for information.

**Requirement for Information - 37 C.F.R. § 1.105**

9. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application (see earlier arguments):

Art Unit: 2123

- Strumolo et al. have published a paper entitled "*New directions in computational aerodynamics*". The paper is listed at the *POWERFLOW*<sup>TM</sup> website (<http://www.exa.com/newsite/newsevents/inthenews.htm>). **Applicants are required to supply the paper.** Strumolo is both a *co-author* of the paper and a *co-inventor* (one of the Applicants), and since the title indicates that the paper is material to the examination of the instant application, it seems reasonable to expect that Applicants fulfill their duty to disclose (37 C.F.R. 1.56; 37 C. F. R. 1.105) and supply the paper, which is required for examination of the application.

- Applicants have relied upon the *POWERFLOW*<sup>TM</sup> teachings in the specification (line 32, page 6 to line 14, page 7, specification); however, no documentation has been provided. These teachings constitute essential matter. **Applicants are required to provide any PowerFLOW information such as manuals, which are dated prior to Applicant's filing date.** PowerFlow News (1998) states that PowerFlow was used at Ford Motor Company, including applications directed at internal flow in engines. Item "u" (form 892, paper # 6) refers readers to the Strumolo et al. paper to find details of "Exa" and PowerFLOW. The Miller reference (paper # 7 - IDS), which is co-authored by Strumolo and Miller expressly discloses computational engine flow analysis using PowerFLOW.

- Applicants have submitted a document from the Fluent<sup>TM</sup> website. **Applicants are required to supply any Fluent<sup>TM</sup> disclosures, which are dated prior to Applicant's filing date.** Applicants allege that they don't know anything about *FLUENT*. The fact is that the FLUENT document was in the application at the time of filing. The requirement is based on the fact that the document was in the application at the time of filing and because the document is directed to computational fluid design applications including automotive external aerodynamics, engine block design and simulation, and engine manifold design and simulation. The FLUENT teachings are considered very relevant to examination of the application.

Art Unit: 2123

**10. The information is required to enter in the record the art referred to in the application or specification, or as indicated by the applicant as relevant to this examination (see earlier arguments):**

- Strumolo et al. have published a paper entitled "*New directions in computational aerodynamics*". The paper is listed at the *POWERFLOW*<sup>TM</sup> website (<http://www.exacom/newsite/newsevents/inthenews.htm>). **Applicants are required to supply the paper.** Strumolo is both a *co-author* of the paper and a *co-inventor* (one of the Applicants), and since the title indicates that the paper is material to the examination of the instant application, it seems reasonable to expect that Applicants fulfill their duty to disclose (37 C.F.R. 1.56; 37 C. F. R. 1.105) and supply the paper, which is required for examination of the application.

- Applicants have relied upon the *POWERFLOW*<sup>TM</sup> teachings in the specification (line 32, page 6 to line 14, page 7, specification); however, no documentation has been provided. These teachings constitute essential matter. **Applicants are required to provide any PowerFLOW information such as manuals, which are dated prior to Applicant's filing date.** PowerFlow News (1998) states that PowerFlow was used at Ford Motor Company, including applications directed at internal flow in engines. Item "u" (form 892, paper # 6) refers readers to the Strumolo et al. paper to find details of "Exa" and PowerFLOW. The Miller reference (paper # 7 - IDS), which is co-authored by Strumolo and Miller expressly discloses computational engine flow analysis using PowerFLOW.

- Applicants have submitted a document from the Fluent<sup>TM</sup> website. **Applicants are required to supply any Fluent<sup>TM</sup> disclosures, which are dated prior to Applicant's filing date.** Applicants allege that they don't know anything about *FLUENT*. The fact is that the FLUENT document was in the application at the time of filing. The requirement is based on the fact that the document was in the application at the time of filing and because the document is directed to computational fluid design

Art Unit: 2123

applications including automotive external aerodynamics, engine block design and simulation, and engine manifold design and simulation. The FLUENT teachings are considered very relevant to examination of the application.

11. For the reasons provided, the documents are considered especially relevant to the instant application and are required by the Examiner for consideration. The text accompanying the documents obtained to date (form 892, paper # 6 and IDS - paper # 7) and specification provides sufficient description which indicates that the listed references, are considered very relevant and appears to be *essential* to the instant invention and claims, and therefore the applicant is required to provide the office with copies of the indicated references for consideration. The Examiner requires the documents because the Examiner needs to consider them in so far as they *are material to the patentability of the application as per 37 C.F.R. 1.56*.

12. **The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement.** This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

13. **The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56.** Where the applicant does not have or cannot



Art Unit: 2123

readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item. Applicants are reminded that they have referred to the material in the specification and have relied upon the material in a declaration in order to attempt to traverse 112(1) rejections.

**14. This requirement is subject to the provisions of 37 CFR 1.134, 1.135 and 1.136 and has a shortened statutory period of 2 months. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).**

15. Any inquiry concerning this communication or earlier communications from the examiner should be:

**directed to:**

Dr. Hugh Jones telephone number (703) 305-0023, Monday-Thursday 0830 to 0700

ET, *or* the examiner's supervisor, Kevin Teska, telephone number (703) 305-9704.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

**mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051 (for formal communications intended for entry) *or*

Art Unit: 2123

(703) 308-1396 (for informal or draft communications, please label "*PROPOSED*" or "*DRAFT*").

Dr. Hugh Jones

Primary Patent Examiner

September 24, 2003



KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER



HUGH JONES Ph.D.  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100